

**A High-Performance, High-Value Receiver Featuring Yamaha's Unique CINEMA DSP, 980W (140W x 7) High Power, and YPAO Automatic Optimization, Plus Much More.**



## 1 High Sound Quality

- 7-Channel 980W Powerful Surround Sound (140W x 7)
- Digital ToP-ART and High Current Amplification
- Pure Direct for High Quality 2-Channel and Multi-Channel Sound Reproduction
- Phono Input

## 2 Advanced Facilities

- YPAO Automatically Sets Best Sound for Any Room, Any Speaker Placement
- RS-232C Interface, Trigger Output and IR Port
- Zone 2 Speaker Out and Amplifier Assignment, and Zone 3 Volume
- Front Panel Video Aux Inputs with Optical Digital and S-Video
- 8 Digital Inputs (5 Optical/3 Coaxial): [Fixed and Assignable]

## 3 Surround Realism

- Dialogue Lift for Enhanced Dialogue Sound Output
- Quad-Field CINEMA DSP and 16 Surround Programmes with 2 THX Programmes
- Night Listening Enhancer (Cinema/Music) and SILENT CINEMA
- Audio Delay for Adjusting Lip-Sync (0-240ms)

## 4 High Picture Quality

- Component Video Up Conversion
- HDTV (720p/1080i) Compatibility
- Wide-Range Video Bandwidth (60MHz -3 dB)

### 16 Surround Programmes

#### Compatible Decoding Formats

- Dolby Digital
- Dolby Digital EX
- DTS Digital Surround
- DTS 96/24
- DTS-ES Matrix 6.1
- DTS-ES Discrete 6.1
- Dolby Pro Logic
- Dolby Pro Logic II Music
- Dolby Pro Logic II Movie
- Dolby Pro Logic II Game
- Dolby Pro Logic IIx Music
- Dolby Pro Logic IIx Movie
- Dolby Pro Logic IIx Game
- DTS Neo:6 Music
- DTS Neo:6 Cinema

#### HiFi DSP Programmes

- HALL ● Concert Hall
- JAZZ CLUB ● Jazz Club
- ROCK CONCERT ● Rock Concert
- ENTERTAINMENT ● Disco
- 7/5-Channel Stereo

#### Programme Subtotal 5

#### CINEMA DSP Programmes

- ENTERTAINMENT ● Game
- MUSIC VIDEO ● Music Video
- Mono Movie
- TV THEATER ● Variety/Sports
- Spectacle
- MOVIE THEATER 1 ● Sci-Fi
- Adventure
- MOVIE THEATER 2 ● General
- Enhance

#### Programme Subtotal 9

#### THX Programmes

- Cinema
- THX Surround EX

#### Programme Subtotal 2

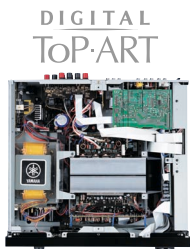
#### Programme Total 16

- HiFi DSP Programmes
- THX Programmes
- CINEMA DSP
- Tri-Field CINEMA DSP
- Quad-Field CINEMA DSP

## High Sound Quality

### Digital ToP-ART and High Current Amplification

The Digital ToP-ART design concept combines the latest and best technologies, parts and circuit designs to maximize sound quality. High Current Amplification uses superior components to achieve high current power with low impedance from input to output.



### Pure Direct

Pure Direct is a special listening mode that provides the highest possible signal purity. It can be used for both analog and digital sources, with two-channel or multi-channel inputs. When it is selected, the signal follows the most direct path and power to the video and FL display circuit is shut down. Certain modes are not operational and even the display is turned off, lighting for only a few seconds when a function is used. A blue display indicates that the Pure Direct is engaged.

## Advanced Facilities

### YPAO Automatically Sets Best Sound for Any Room, Any Speaker Placement

Yamaha's YPAO system uses a small microphone and sophisticated equalization to automatically set the best sound for any room, no matter where the speakers are. The HTR-5890 has an improved system that is faster (less than three minutes).



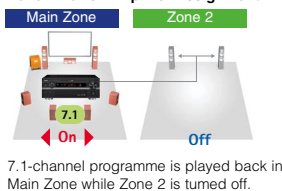
Optimizer Microphone

### Custom Installation Compatibility

The HTR-5890 offers a variety of features that make it easy to achieve flexible custom installation in three different rooms (zones) of the home. Zone 2 power amplifier assignability and speaker terminals mean that Zone 2 can be fully independent with its own 2-channel power, while you still enjoy 5.1-channel sound in the main room. The video signal can be output to Zone 2

as well. Zone 3 has its own volume control, and there is an IR port for remote control capability and a trigger output for automatic power-on of other components. There is also an RS-232C interface for using a touch-screen controller or a PC to configure the receiver.

### Zone 2 Power Amplifier Assignment



7.1-channel programme is played back in Main Zone while Zone 2 is turned off.

### Surround Realism

### Dialogue Lift

When the centre speaker is below a large screen, the sound image of the dialogue is oriented below the picture, which sounds strange. Dialogue Lift performs signal processing on the centre channel signal and presence channels signals (located higher than the centre channel), orienting the sound image of the dialogue to the proper position. This results in natural reproduction matching the location of the dialogue to the screen image.

### Quad-Field CINEMA DSP and 16 Surround Programmes with 2 THX Programmes

Yamaha's ultra-sophisticated Quad-Field and Tri-Field CINEMA DSP technology creates thrillingly realistic soundscapes in your room. 16 surround programmes with 2 THX programmes provide full format compatibility and extensive listening choices.

### Night Listening Enhancer and SILENT CINEMA

During low-volume listening, such as late at night, dynamic range suffers and you may miss some sounds. The Night Listening Enhancer offers two modes, Cinema and Music, with three-level selectability, which will ensure that you don't miss movie dialogue or quiet passages, or lose overall surround spaciousness. It works for all surround programmes, including Dolby Pro Logic IIx.

The SILENT CINEMA mode allows private listening enjoyment of multi-channel music or movies, with an accurate simulation of surround sound, through ordinary headphones.

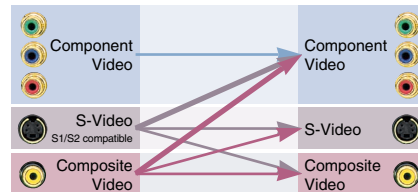
## SILENT CINEMA™



## High Picture Quality

### Component Video Up Conversion

Up video conversion (composite to S-Video and component, S-Video to component) as well as down video conversion (S-video to composite) is automatically applied to incoming signals. This means that you simply use the best possible cable between the receiver and the TV, and then whatever the source is, you are assured of getting the highest possible quality.



### Other Notable Features

- Phono Input
- Accurate Touch Volume Control
- 192 kHz/24-Bit DACs for All Channels
- High Dynamic Power and Linear Damping
- Digital Tone Controls for Front L/R, Centre, Presence and Subwoofer
- Wide-Range Audio Frequency Response for DVD-Audio/Super Audio CD Compatibility
- Analogue Mixdown
- Analogue Delay for Lip-Sync (0-240ms)
- 9-Channel Speaker Outputs with Zone 2/ Presence Speaker Outputs
- Selectable 9-Band Subwoofer Crossover
- Speaker A, B or A+B Selection (Front L/R)
- Wide-Range Video Bandwidth (60MHz -3 dB)
- 8 Digital Inputs (5 Optical/3 Coaxial, Fixed and Assignable) and 7 S-Video Inputs
- HDTV Compatible Component Video Out
- Virtual CINEMA DSP
- Front Panel Video Aux Terminals
- Direct-Access (Macro-Command, Learning and Preset Capable) Remote Control Unit with Macro-Command Buttons

## HTR-5890 Extensive Connections

5 Optical* and 3 Coaxial Digital Inputs, and 2 Optical Digital Outputs (fixed and assignable)	7 A/V* (with S-Video) and 2 A/V* (with S-Video) and 2 Audio Outputs	2 Component Video Inputs (fixed and assignable) and 1 HDTV Compatible Component Video Monitor Output	RS-232C Interface	Remote Control IR Code Input/Output for Custom Installation	Trigger Output for Automatic Power on of Other Components (+12V, 15mA)	Terminal for Detachable Power Cable
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6-Channel (8-Channel Compatible) External Decoder Input

Zone 2/ Zone 3 Outputs

S-Video and Composite Monitor Outputs

Front L/R, Centre, Surround L/R and Surround Back L/R Preout, and Subwoofer Output Terminals

9-Channel (Front, Centre, Surround, Surround Back) with Zone 2/Presence Speaker Terminals

Zone 2/Presence Speaker Terminals (power assignable)

\* Including Video Aux Terminals on Front Panel

• Dolby, Pro Logic and Double D are trademarks of Dolby Laboratories Corporation. • DTS, DTS-ES and Neo:6 are trademarks of Digital Theater Systems, Inc. • Product designs and specifications are subject to change without notice.

## HTR-5890 Main Specifications

Minimum RMS Output Power (8 ohms, 1 kHz, 0.7% THD)	Front Channels	140 W + 140 W
	Centre Channel	140 W
	Surround Channels	140 W + 140 W
	Surround Back Channels	140 W + 140 W
Minimum RMS Output Power (8 ohms, 20 Hz-20 kHz, 0.04% THD)	Front Channels	120 W + 120 W
	Centre Channel	120 W
	Surround Channels	120 W + 120 W
	Surround Back Channels	120 W + 120 W
Dynamic Power/Ch (Front Ch, Speaker A)	8/6/4/2 ohms	155/195/250/330 W
Damping Factor (8 ohms, 20 Hz-20 kHz)		140 (speaker A)
Frequency Response		10 Hz-100 kHz ±0, -3 dB
Total Harmonic Distortion (20 Hz-20 kHz, 60 W/8 ohms) CD (Front Sp Out)		0.04%
Signal-to-Noise Ratio (CD)		100 dB (250 mV)
VIDEO SECTION		
Monitor Out Frequency Response		Component Video Signal 5 Hz-60 MHz -3 dB
TUNER SECTION		
FM 50dB Quieting Sensitivity		Mono 2 μV (17.3 dBf) Stereo 25 μV (39.2 dBf)
FM Selectivity (400 kHz)		70 dB
GENERAL SECTION		
Dimensions (W x H x D)		435 x 171 x 424 mm; 17-1/8" x 6-3/4" x 16-11/16"
Weight		15 kg; 33.1 lbs.

d-cinema "d-cinema" is the slogan of Yamaha A/V products and technology, reflecting our focus on digital technology and our leadership in creating and refining digital home theatre.